

REMARKS

Claims 1-23 were pending in this application. In the Office Action dated January 21, 2005, claims 1-7 and 9 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,207,271 (Daroux). Claim 8 was rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over, Daroux. Claims 10-23 were rejected under 35 U.S.C. § 103(a) as being obvious over Daroux. In addition, claims 1-23 were provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-23 of co-pending application serial no. 10/737,522.

In response, Applicants have canceled claim 18, without prejudice or disclaimer, and have amended claims 1-17 and 19-23. New claims 24-31 also have been added. As a result, the claims now pending in this application are claims 1-17 and 19-31.

Independent claim 1 has been amended to recite a combination of a covering material, a layer of insulation, and a layer of an adhesive bonding the covering material to the layer of insulation. Claim 1 further recites that the covering material comprises a central layer, a polymer layer disposed on each side of the central layer, and two structures, one structure affixed to each polymer layer in which each structure comprises at least one layer of a metal containing foil and at least one layer of a puncture-resistant polymer film.

It is respectfully submitted that claim 1, as amended, is patentable over Daroux. Daroux, fails to teach or suggest that its laminate may be used in combination with insulation, let alone be bonded to insulation by an adhesive. Daroux teaches the use of the disclosed laminate to hermetically seal electrochemical devices, such as electrolytic cells and batteries. The self-sealing layer of Daroux is formed of a material that is heat-sensitive and/or pressure sensitive “so as to bond to another layer of like material so as to enable the formation of the battery package.” (Daroux, col. 4, lines 50-54). Thus, Daroux does not teach or suggest bonding its self-sealing layer to a different material such as insulation. Rather, Daroux teaches that this self-sealing layer must be bonded to another layer of like material. Since Daroux fails to teach or suggest that its laminate may be bonded to insulation, and in fact, actually teaches away from such a combination because it teaches bonding its laminate only to a like material, it is submitted

that Daroux fails to disclose or suggest the combination recited in claim 1, for at least this reason.

Claims 2-17 and 24-31 are all dependent from claim 1, and further define the invention. Therefore, it is submitted that these claims are patentable for at least the same reasons as claim 1.

In addition to the foregoing, claim 8 recites that the covering material is sufficiently rigid to substantially retain a shape once formed into that shape and that the covering material may be cut using a hand-held implement with a sharp edge. The Office Action concedes that Daroux is silent with respect to these particular properties, but contends that the rigidity and cutability of the laminate are properties of the laminate. The Office Action asserts that the material of Daroux inherently possesses these properties, or in the alternative, that it would have been obvious to have selected materials and thicknesses of the Daroux material to arrive at a material having the desired rigidity and ability to be cut. (See paragraph 10). Applicants respectfully disagree. The material of Daroux is intended only to be used for the purpose of being a packaging for an electrolytic cell or battery. The Daroux laminate is adhered to itself in the formation of the package, once folded over onto itself. The material of Daroux must be very flexible and would not necessarily retain its shape once formed, since it is taught to be held in place by the adhesion of the self-sealing layer to itself or a like material, once activated. Moreover, as noted by the Examiner, Daroux teaches that the flexible laminate is “less than about 152.4 microns” in thickness (col. 5, lines 10-12). Such a thin layer of laminate would not always be capable of retaining its shape once formed. Whether it would retain its shape would depend on the selection of the materials and their thicknesses. While it is possible that one could select materials and thicknesses within the types and ranges suggested by Daroux that would result in a structure that would retain its shape, not all of the Daroux structures formed from such suggested materials and thicknesses would necessarily retain their shape. Transclean Corp. v. Bridgewood Services, Inc., 290 F.3d 1364, 1373, 62 U.S.P.Q.2d 1865, 1871 (Fed. Cir. 2002). Therefore, this limitation cannot be inherent in Daroux. In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1951 (Fed. Cir. 1999) (probability or possibility is not enough to establish inherency). Moreover, Daroux does not suggest that its structure should be so rigid as to retain its shape, as acknowledged by the Office Action. Therefore, one of skill would not have been

led by Daroux to select the materials and thicknesses needed for the covering material to retain its shape once formed, in the absence of hindsight.

Furthermore, Daroux does not suggest that it would be desirable for its material to be cut manually. In fact, the process of Daroux appears to be automated, so that manual cutting would not be required or even desirable. In contrast, the material of the present invention typically is applied to insulation at a remote job site, and therefore must be capable of being manually cut. In the absence of some suggestion in Daroux that the material should be manually cut, one of ordinary skill in the art would not have been led to select the materials and thicknesses thereof to produce such a result, in the absence of the hindsight teachings provided by Applicants' invention. Certainly the Daroux material is not inherently manually cuttable, as materials could be selected from those suggested by Daroux, if used in sufficient thicknesses, that would prevent the Daroux material from being manually cuttable. Therefore, it is respectfully submitted that claim 8 is allowable for these additional reasons.

Claim 9 has been amended to recite that the covering material has a total thickness of about 350 microns. As noted above, Daroux specifically teaches that its flexible laminate has a thickness "less than about 152.4 microns" (col. 5, lines 10-12). Moreover, Daroux goes on to note that the preferred thickness of its material is about 60 microns to about 127 microns, and more preferably in the range of about 101.6 microns to about 127 microns. All of these thicknesses are well below the 350 micron thickness recited in claim 9. Therefore, claim 9 is allowable for this additional reason, because a thickness of about 350 microns for the material as recited in claim 9 is not disclosed or suggested by Daroux.

Claim 10 recites that at least one layer of a metal-containing foil is disposed on the outer surface of the covering material. Claim 10 also recites at least three layers of a metal-containing foil and two layers of a puncture-resistant polymer film in each of the structures, of which there are two. It is noted that in the embodiments disclosed in Daroux, only the embodiment of Fig. 3D illustrates a structure in which the metal foil is disposed on an outer surface. All of the other embodiments of Daroux specifically require either a layer of self-sealing polymer, or a structural polymer layer on the outer surface of the material, because, as noted above, Daroux requires that the self-sealing layer be bonded to another like material. In

the example of Fig. 3D, the only one which discloses a metal foil on the outer surface, the structure contains no layer of a puncture-resistant polymer film, and only two metal foil layers (col. 5, lines 43 and 44). Therefore, it is submitted that claim 10 is neither anticipated by nor obvious over Daroux for these additional reasons.

Claim 11 recites that the outer layer of a metal-containing foil is approximately 25 microns in thickness and that all the other layers of a metal containing foil are approximately 9 microns in thickness. This particular structure is neither disclosed nor suggested by Daroux and claim 11 is patentable for this additional reason.

Claims 16, 17 and 19 recite further dimensions, which are not disclosed or suggested, in this particular combination, by Daroux. Therefore, these claims are submitted to be allowable for these additional reasons.

Claim 24 is dependent from claim 1 and recites duct work which is disposed adjacent the insulation on a side thereof opposite the covering material. Since Daroux teaches the use of its laminate only to hermetically seal electrochemical devices, such as electrolytic cells and batteries, the use of duct work in conjunction with the Daroux materials is neither disclosed nor suggested, and claim 24 is patentable for this additional reason.

Claim 25 is also dependent from claim 1 and recites a pipe which is disposed adjacent a surface of the insulation opposite the covering material. Again, Daroux fails to disclose or suggest the use of its material with a pipe. Claim 25 is patentable for this additional reason.

Claim 26, which is also dependent from claim 1, recites a seam formed between adjacent portions of the covering material and a pressure sensitive adhesive tape which covers that seam. The use of such a tape is neither disclosed nor suggested by Daroux and therefore claim 26 is patentable for this additional reason.

Claim 27 recites that the layer of adhesive is a pressure-sensitive adhesive that remains tacky in a temperature range of from about -17°F to about 284°F. Claim 27, which is dependent from claim 1, is patentable for the additional reason that Daroux fails to teach or

suggest the use of such a pressure-sensitive adhesive that remains tacky in the recited temperature range.

Claim 28 is dependent from claim 1, and further recites that the pressure-sensitive adhesive remains sufficiently tacky to bond the covering material to the layer of insulation without the application of heat or pressure in excess of manual pressure. In contrast, Daroux teaches that the self-sealing layer is applied to a like material by the use of a heat and/or pressure process (col. 6, lines 9-11). Therefore, claim 28 is patentable for this additional reason.

Claim 29 is dependent from claim 27 and recites that the pressure-sensitive adhesive includes an isoctyl acrylate polymer. This particular polymer is not substantially resistant to the electrolyte solutions of batteries. Daroux states that the material of the self-sealing layer must not dissolve in the electrolyte solution of a battery (Daroux, col. 4, lines 58 and 59). Thus, Daroux does not teach or suggest the claimed polymer, and actually teaches away from it. Therefore, it is believed that claim 29 is patentable for this additional reason.

Claim 30, which is dependent from claim 1, recites that the layer of adhesive is bonded to a paper layer disposed on the layer of insulation. Daroux teaches that the self-sealing layer must be bonded to a like material, and not to a different material. Therefore, Daroux not only fails to suggest the limitation of claim 30, it actually teaches away from it and claim 30 is allowable for this additional reason.

Claim 31 recites that a metal-containing foil is disposed on an outer, exposed surface of the covering material. This claim is dependent from claim 1, and is patentable for at least the reasons given for claim 1. In addition, in Daroux, the only embodiment that shows an exposed, outer metal layer is that illustrated in Fig. 3D. All of the other embodiments illustrated in Figs. 3A, 3B and 3C show the metal foil as being covered by a polymer, or the self-sealing layer. In the embodiment of Fig. 3D, the two layers of metal are only separated by a single layer of an adhesive that forms the separation layer. Daroux teaches that in that embodiment, "no reinforcing polymer is provided" (col. 5, lines 43 and 44). In contrast, claim 1 recites at least one layer of a puncture-resistant polymer film as well as at least one layer of a metal-containing foil in each of two structures. Therefore, it is submitted that claim 31 is patentable for this additional reason.

Claim 20 has been amended to recite a combination of a fluid conduit, a layer of insulation covering the fluid conduit, and a weather seal bonded to the insulation by a layer of adhesive. As discussed with respect to claim 1, this particular combination is neither disclosed nor suggested by Daroux. In fact, Daroux actually teaches away from such a combination by requiring that the self-sealing polymer layer only be adhered to other like materials. Daroux clearly fails to disclose or suggest a fluid conduit. Claim 20 further recites that the weather seal be manually bendable into a desired configuration that conforms to a shape of the fluid conduit and that the weather seal retains this desired configuration once a manual force is removed. Finally, claim 20 recites that the weather seal is manually cuttable with a handheld implement. For the same reasons as discussed with respect to claim 1, and claim 8, it is submitted that claim 20 is allowable, because these limitations are not inherent in the Daroux structure or obvious over Daroux.

Claims 21-23 are all dependent from claim 20 and are allowable for at least the same reasons as claim 20. Claim 22 recites a particular puncture-resistance, and a tear strength for the weather seal. Applicants respectfully traverse the assertion in the Office Action that such properties would be inherent in the material of Daroux. Daroux provides a broad range of possible thicknesses and materials. It is perhaps possible that some of these thicknesses and materials, if used in the proper combination, might meet these limitations. However, possibilities or probabilities are not enough for inherency. In re Robertson, 169 F.3d at 745. Moreover, Daroux does not provide any guidance at all, and does not specify that its material must meet any particular puncture-resistance or tear strength tests. Therefore, one of ordinary skill in the art certainly would not be led to select materials and thicknesses that would produce these results. For these additional reasons, it is submitted that claim 22 is allowable.

Claim 23 recites that the total thickness of the weather seal is about 350 microns. As noted above with respect to claim 9, this number is substantially higher than the maximum thickness of about 152.4 microns taught by Daroux. Therefore, claim 23 is allowable for at least this additional reason, since Daroux actually teaches away from a 350 micron thickness.

Applicants note that all the claims pending in this application have been provisionally rejected as being unpatentable under 35 U.S.C. § 101 over the claims of copending Application

Serial No. 10/737,522. Upon an indication of allowability, Applicants will cancel the overlapping claims from one of these two applications to overcome this provisional rejection.

Applicants are submitting herewith a replacement first sheet of drawings for the purpose of submitting entirely new Figs. 1, 1A and 1B. Figs. 1, 1A and 1B as filed with this application are not the proper drawings. They are drawings inadvertently taken from the parent application of this application, Application Serial No. 10/330,162. This error in the drawings is immediately apparent when one compares Figs. 1, 1A and 1B with the detailed specification. For example, structures 8 and 9 as described on page 8, lines 28 and 29 of the specification, are completely absent from Figs. 1, 1A and 1B as filed with the application. Also, layers 28 (pages 9 and 10) and 27 (page 11) and release liner 29 (pages 11 and 12) are not shown in Figs. 1, 1A and 1B as filed. The replacement sheet submitted herewith for Figs. 1, 1A and 1B brings these drawing figures into conformance with the specification as filed.

It is respectfully submitted that the replacement sheet substituting new Figs. 1, 1A and 1B does not introduce any new matter. The layers in each embodiment as reflected in new Figs. 1, 1A and 1B are described in great detail beginning on page 8, line 26 and continuing to page 18, line 3. It is respectfully submitted that Figs. 1, 1A and 1B could be readily reconstructed from the extremely detailed description provided in the foregoing portions of the application. In fact, these structures are described in sufficient detail that one of skill in the art could easily make and use the invention without the need to refer to any drawings at all. Figs. 1, 1A and 1B simply illustrate the layers and the relationship of each layer to other layers, all of which is fully described in the foregoing portions of the specification.

It is respectfully submitted that Applicants are in compliance with 37 C.F.R. § 1.21(d). Figs. 1, 1A and 1B are in compliance with § 1.84 and are being submitted as a replacement sheet of drawings attached to the amendment. These drawings bear the header "Replacement Sheet". In the foregoing paragraphs, Applicants have explained the changes to the drawings. Applicants are not including a marked-up copy of the amended figures, as substantial changes have been made to Figs. 1, 1A and 1B to bring them into conformance with the specification, and these changes cannot be readily identified on a marked-up copy of the originally filed drawings. The structures illustrated in Figs. 1, 1A and 1B as filed with the

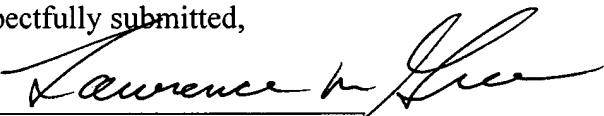
application are different from those structures shown in substitute Figs. 1, 1A and 1B found on the enclosed replacement sheet. However, should the Examiner request such a marked-up version, Applicants will make an attempt to provide a marked-up version of originally filed Figs. 1, 1A and 1B to the extent one can be prepared. It is respectfully requested that the Examiner accept Figs. 1, 1A and 1B as found in the replacement sheet submitted herewith.

It is respectfully submitted that the application is now in condition for allowance and reconsideration is requested. The Examiner is invited to telephone Applicants' undersigned attorney should he feel such a telephone call would further the prosecution of the present application.

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Respectfully submitted,

By


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